

**Department of Ecology
Water Quality Assessment for Washington
Summary Information
June 1, 2005**

The following information provides highlights of what we are learning from this new, more comprehensive assessment of Washington's water quality. The results of this Assessment went through two public comment periods, including new data to update the Assessment to 2004. The results conclude the 2004 Water Quality Assessment and candidate 303(d) List.

- According to statewide statistics, there are 73,886 miles of rivers and streams statewide, 4,174 lakes, and 2,943 square miles of marine estuaries.
- Of the total statewide river miles, approximately 4000 stream miles were assessed, representing about 5% of all streams. Approximately 733 lakes and 148 gridded waters were assessed, representing about 3% of the total lakes and marine grids. While this is a small percentage of the total waters in the state, it is important to keep in mind that the assessed segments are often indicative of problems that are then investigated at a larger watershed level, to determine the extent of the source causing the problem.
- This latest comprehensive assessment included over 30,000 assessed (water column and sediment) segments¹, compared to 2,362 segments in 1998, an increase of almost 13 times the number of assessments.
- The 2004 Water Quality Assessment has separate lists for water column listings and contaminated sediment listings, so it is much easier to distinguish between the two mediums.

The following information is specific to the water column data only

- Of the total number of assessed segments for water column data, a high percentage (about two thirds of those assessed), appear to be in good shape for the pollutant monitored. Of the one third that are showing evidence of problems for a specific pollutant, more than half are not yet polluted and should be given attention to prevent further degradation. Percentage results for the assessed waters are as follows:
 - 62% meet the parameters they were tested for
 - 17% are waters of concern, but not polluted
 - 4% have water cleanup plans to correct problems
 - 3% are impaired by a non-pollutant, such as habitat degradation
 - 14% are on the polluted waters list, (the 303(d) list)

¹ The system used for this assessment is the same one used for the 303(d) list in 1998. This system defines segments of rivers, streams, and lakes of less than 1,500 acres as that portion of the water body lying within a given section of a township and range (about a one mile square). Water bodies larger than 1,500 acres in size are subdivided by grid cells sized to 2.25 seconds of latitude/longitude per side. The Columbia River and Snake Rivers areas were also segmented in grids. Therefore, each listing for a water body and parameter represents a one-mile stretch of river, or approximately a 500-foot square grid (this varies depending on the latitude and longitude).

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- Water segments listed in 1998 were reassessed based on the updated guidance for listing and new data that may have been submitted. As a result, many segments have moved off of the 1998 303(d) list. About 50% (882 listings) of the waters on the 1998 303(d) list remain on the current Category 5 list of polluted waters. About 50% (874 listings) of the waters on the 1998 303(d) list have moved to other categories:
 - 8% of the 1998 (146 listings) have moved to Category 1 because more recent data shows the water is not impaired.
 - 19% of the 1998 (338 listings) have moved to Category 2 because the water is not showing persistent pollution, QA of the data is questionable, or verification of pollutant listing determined water is not impaired.
 - 16% of the 1998 (289 listings) have moved to Category 4A or 4B because a clean up plan (TMDL) or pollution control plan has been approved.
 - 6% of the 1998(101 listings) have moved to category 4C because their impairment is not related to a pollutant (*e.g.* habitat impairment, flow, invasive species).
- Overall, the Category 5 list, representing the candidate 2004 303(d) list, has increased from the 1998 assessment by about 725 water body segments. While over half of the 1998 303(d) listings moved off the list, new listings were added as the result of new monitoring data gathered in the past 6 years, since 1998.
- In the 1998 assessment, approximately 642 streams and lakes were represented on the 303(d) list, many of them with numerous segments monitored for more than one pollutant parameter. In this new assessment, approximately 800 rivers and lakes are represented on Category 5, the 303(d) list, many of them also with numerous segments monitored for more than one pollutant. This is an increase of 166 new waterbodies on the 303(d) list.
- The key elements that have affected water quality in Washington continue to appear in new listings. These include temperature, fecal coliform, dissolved oxygen, pH, toxics and total phosphorus. Of the total list of polluted waters, about 80% are made up of these parameters. The other 20% include metals, chemicals, and other pollutant criteria.
- Of the main pollutant parameters causing 303(d) listings, the most significant increase in listings occurs with temperature. This increase is due to increased temperature monitoring efforts in the last several years, likely spurred by increased salmon habitat protection efforts. The collection of continuous monitoring data through the use of temperature probes has also proven to be a cheap and reliable method for gathering temperature data. So, the combination of increased salmon habitat studies and having a low cost reliable method for gathering temperature data has resulted in increased temperature listings.
- The breakout of the key pollutant parameters, based on a total of 2,678 listings in the Polluted Waters category, is as follows:
 - Temperature listings are 33% (817) of the total listings.
 - Fecal coliform listings are 29% (722) of the total listings
 - Dissolved oxygen listings are 13% (324) of the total listings
 - pH listings are 6% (162) of the total listing
 - Total phosphorus listings are 1% (37) of the total listings
 - Other pollutants (metals, toxics, other) are 17% (420) of total listings